

CLAIMSI claim:

1. A metal carrying sleeve for printing and transfer forms, the carrying sleeve comprising a rectangular, thin-walled flat sheet, that is bent to a to a desired hollow cylindrical form so that two edges of the flat sheet face one another; a seam that permanently connects together the facing edges of the sheet; and a homogeneous, continuous and outer circumferential surface formed by processing the surface so that continuous printing is possible.
2. A carrying sleeve as defined in claim 1, herein the thin-walled flat sheet is made of aluminum.
3. A carrying sleeve as defined in Claim 1, wherein the circumferential surface, including the seam, is chemically roughened and anodized, and further comprising a photosensitive coat on the roughened and anodized surface.
4. A carrying sleeve as defined in Claim 1 and further comprising a water-conducting coat on the outer surface, including the seam.
5. A carrying sleeve as defined in Claim 1, and further comprising an engraved copper coat on the entire outer surface, including the seam.

6. A carrying sleeve as defined in Claim 1, and further comprising an endless rubber coat that covers the entire outer surface, including the seam.
7. A carrying sleeve as defined in Claim 1, wherein the carrying sleeve is configured to directly carry a flexible printing form for flexographic printing.
8. A process for producing a carrying sleeve for printing and transfer forms, comprising the steps of: cutting a base plate from thin-walled sheet metal drawn from a roll and in a flat state to a size corresponding to a circumference and breadth of a printing cylinder;  
  
bending the base plate into a desired cylindrical form so that two edges of the base plate face one another;  
  
permanently connecting together the two edges of the base plate with a welded seam that has an outwardly directed crown; and  
  
processing the entire sleeve surface, including the crown, to form a homogeneous, continuous outer surface.
9. A process as defined in Claim 8, wherein the step of connecting together the edges of the base plate includes forming the crown with welding filler materials.

10. A process as defined in Claim 8, wherein the step of permanently connecting the base plate edges includes forming the crown using targeted protective gas feeds.
11. A process as defined in Claim 8, wherein the step of permanently connecting base plate edges includes forming the crown by deposit welding following an initial welding of the base plate edges.

12. A process for producing an offset printing form, comprising the steps of:

producing a carrying sleeve for printing and transfer forms by cutting a base plate from thin-walled sheet metal drawn from a roll and in a flat state to a size corresponding to a circumference and breadth of a printing cylinder;

bending the base plate into a desired cylindrical form so that two edges of the base plate face one another;

permanently connecting together the two edges of the base plate with a welded seam that has an outwardly directed crown, and

processing the entire sleeve surface, including the crown, to form a homogeneous, continuous outer surface, the processing step including chemically roughening and anodizing the hollow cylindrical form of the base plate and subsequently providing a

photosensitive coating on the outer surface of the cylindrical form so as to create a printing form sleeve for continuous printing.

13. A process as defined in Claim 12, wherein the base plate is made of aluminum.

14. A process for producing a gravure printing form, comprising the steps of:

producing a carrying sleeve for printing and transfer forms, by cutting a base plate from thin-walled sheet metal drawn from a roll and in a flat state to a size corresponding to a circumference and breadth of a printing cylinder, bending the base plate into a desired cylindrical form so that two edges of the base plate face one another, permanently connecting together the two edges of the base plate with a welded seam that has an outwardly directed crown, processing the entire sleeve surface, including the crown, to form a homogeneous, continuous outer surface; and

applying a metal coat to the processed outer surface and then mechanically processing the metal coat.

15. A process as defined in Claim 14, wherein the step of applying a metal coat includes applying a copper alloy to the outer surface of the cylindrical form.

16. A process for producing a transfer form, comprising the steps of:

producing a carrying sleeve for printing and transfer forms by cutting a base plate from thin-walled sheet metal drawn from a roll and in a flat state to a size corresponding to a circumference and breadth of a printing cylinder, bending the base plate into a desired cylindrical form so that two edges of the base plate face one another, permanently connecting together the two edges of the base plate with a welded seam that has an outwardly directed crown, and processing the entire sleeve surface, including the crown, to form a homogeneous, continuous outer surface; and

applying an endless rubber coating to the entire processed sleeve surface.

17. A process for producing a printing form, comprising the steps of:

producing a carrying sleeve for printing and transfer forms by cutting a base plate from thin-walled sheet metal drawn from a roll and in a flat state to a size corresponding to a circumference and breadth of a printing cylinder, bending the base plate into a desired cylindrical form so that two edges of the base plate face one another, permanently connecting together the two edges of the base plate with a welded seam that has an outwardly directed crown, and processing the entire sleeve surface, including the crown, to form a homogeneous, continuous outer surface; and

applying an endless ceramic coat to the entire processed sleeve surface.